Codian IP VCR 2200 Series User Manual

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Codian IP VCR 2200 Series User Manual

Welcome to the Codian IP VCR user manual. You can access all topics from this contents page. You can also access context-sensitive help for a particular page when using the IP VCR web browser interface, by clicking the icon on that page.

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Logging into the Web Interface

The Codian IP VCR web interface is used for administering the IP VCR device, managing recordings, users, and pre-defined endpoints. You can also perform many recording-related tasks using the web interface that you cannot otherwise do.

When connecting to the Codian IP VCR web interface, you must log in so that the IP VCR can associate the session with your configured user and a set of access privileges. The IP VCR has a set of configured users, and each user has an ID and password that are used for logging in.

1. Using a web browser, enter the host name or IP address of the IP VCR.
2. Click on the **Log in** button.
3. Enter your assigned **User Name** and **Password**.

The main menu appears, restricting the available options based on your access privileges. Administrators have full access; standard users can upload new recordings and manage their profiles; guest users typically can access publicly available recordings.

Related Topics

- Web Interface Tips

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Web Interface Tips

These tips can help you more effectively use the IP VCR web interface:

- Displaying Updated Information
- Working with Tables
- Getting Help

Displaying Updated Information

The IP VCR web interface primarily displays static information that represents a snapshot of the status when the page was requested or refreshed. However, the information on the pages do not automatically update. Instead, you can just click the Refresh button on your web browser to display that latest information.

For example, if you are viewing the Stored recordings list, it will not automatically update to show new recordings or reflect new playbacks of existing recordings.

Working with Tables

Most of the IP VCR configuration and status information display in tables, which typically resemble the following:

Delete selected Add new entry Page 1 2 3 4 5 6 7

	Name	Address	Status
☐	a sample name	224.2.127.254	Responding normally
☐	building bridges	10.2.1.47	Responding normally
☐	middle entry	224.2.127.254	Responding normally
☐	xylophone	224.2.127.254	Responding normally
☐	zebra	224.2.127.254	Responding normally

Delete selected Add new entry Page 1 2 3 4 5 6 7

The significant controls in tables include:

- Checkboxes
- Hyperlinks
- Sorting Icons
- Page Indicators
- Buttons

Checkboxes

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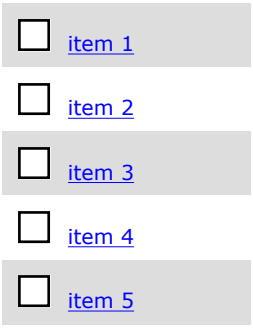


Clicking in the checkboxes next to items indicates that you want to apply an operation to those items. You can select each item individually, but sometimes you might want to apply the same operation to many items simultaneously. For example, you might do this to invite several endpoints into a conference at once rather than having to add them all separately.

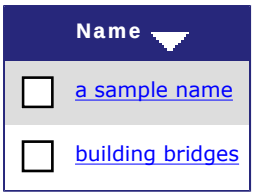
To do this, select or unselect one checkbox, then press the Shift key on your keyboard and click on another checkbox. All checkboxes between the first and last one will simultaneously be selected (or unselected).

You can also delete all selected items by clicking on the items you want to remove, and pressing the **Delete selected** button.

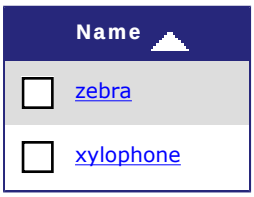
Hyperlinks

In general, when viewing items in the table, you can click on the "Name" field to display a new window with detailed configuration information about that item. Typically, you can also change and save the configuration for that specific item from that window.

Sorting Lists



A downward pointing arrow next to the a column heading indicates that the table is sorted by this category, in ascending order. For example, this sample table is displaying the items sorted by name. To sort by a different field, click on its name (for example, "Address" or "Status").



This shows the effect of clicking on the "Name" column heading when the table was sorted by already sorted by name. The downward pointing arrow has changed to an upward pointing arrow, and the names are now displayed in the opposite order, with the latest (in alphabetical terms) now at the top.

Page Indicators

If a table contains more entries than can be usefully displayed on a single screen, those entries are split up into multiple pages. The number of the page currently displayed is highlighted. To move to another page, click its associated link. Unused pages (representing unused table capacity) are grayed out.

Each page is a section of the complete, sorted, table. So the first item will always be at the top of Page 1. However, if you reverse the sorting order is reversed, the previously last *table* entry displays at the top of Page 1.

Buttons

Tables typically have two or more buttons associated with them that allow you to perform tasks to either all items or just selected items in the table. Refer to the context-sensitive Help topics for the specific tables for detailed assistance.

Getting Help

If you need assistance while working with the IP VCR web interface, click the Help icon on that page to display context-sensitive help content. This content explains fields and offers tips about how to use that specific web page.

Related Topics

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- Logging into the Web Interface

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Watching a Recording From the IP VCR

The IP VCR offers a variety of ways to watch stored recordings. These include watching recordings using an H.323 endpoint and watching recordings by web streaming. Watching recordings can be an interactive experience. The following pages provide detailed explanations of the options available. Refer to these for more information.

- Using a Video Endpoint to Watch Recordings
- Using an Auto Attendant
- Using Streaming to View Recordings

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Using a Video Endpoint to Watch Recordings

You may watch recordings stored on the IP VCR using an H.323 video endpoint. There are a number of ways to connect to the IP VCR; refer to the sections below for details of the options available to you:

- Connecting Directly Using a Phone Number
- Connecting via the Auto Attendant
- Being Called by the IP VCR

Watching recordings is an interactive experience. Playback may be paused, rewound and so on. Refer to the section below for an explanation of the playback controls available:

- Using Playback Controls from a Video Endpoint

Connecting Directly Using a Phone Number

Your system administrator may have configured the IP VCR to allow you to use your video endpoint to watch a recording by dialing a particular phone number. Each recording will have a different number to call. Consult your system administrator for details.

If the recording is protected, you will be required to enter a PIN before you can start playback (see Entering a Pin).

Connecting via the Auto Attendant

The IP VCR features a sophisticated Auto Attendant menu system that allows you to see a list of which recordings are available, and select the one you wish to watch with the aid of video previews for unprotected recordings. Refer to Using an Auto Attendant for full details on how to navigate the menu.

If you choose to watch a protected recording, you will be prompted to enter a PIN before you can start playback (see Entering a Pin).

Depending on how your system administrator has configured the IP VCR, you may be able to connect to the Auto Attendant by dialing a phone number, or by dialing the IP address of the IP VCR. Consult your system administrator for which options are available to you.

Being Called by the IP VCR

As an alternative to calling the IP VCR from your video endpoint, you may instead use the web interface to initiate a call from the IP VCR to your endpoint. Refer to the section Calling Out From the IP VCR for details.

Once connected, the playback experience is identical to if you had called the IP VCR using one of the methods described above. Similarly, you may be asked to enter a PIN before playback of protected recordings will start.

Entering a PIN

If you connect to a protected recording, you will be presented with the PIN entry screen, and will hear audio prompts playing.

Use your endpoint's numeric keypad to enter the PIN, followed by #. (Note that some endpoints require you to activate the keypad before dialing, for example by pressing the # key.)

Using Playback Controls from a Video Endpoint

It is possible to control the playback directly from your video endpoint while watching a stored recording using the Far-End Camera Controls (FECC). Refer to the sections below for details of the controls available, and for the meanings of on-screen status icons that may be displayed.

Basic control

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To play and pause recordings:

1. Change the camera control to "far".
2. Use the **down** control to pause playback.
3. Use the **up** control to resume playback.
4. When playback reaches the end of the recording, it will stop or automatically return to the start of the recording and continue playing, depending on how the IP VCR is configured.
5. When you have finished watching the recording, simply hang up the call

Refer to the table below for assistance interpreting the icons that appear on-screen.

Icon	Icon Description
play	Playback is in progress. The icon will disappear after a few seconds.
pause	Playback is paused. The icon will remain on screen (blinking) while playback is paused.
	Playback finished. The icon will remain on screen.

Further control

To advance quickly though a recording (fast-forward):

1. Change the camera control to "far".
2. Use the **right** control to engage fast forward mode. The video will rapidly advance, and the playback time will be shown in the corner of the screen.
3. When you reach the point from which you wish to resume playback, press either **up** to resume or **down** to pause playback as required.
4. If the end of the recording is reached, fast forward will stop.
5. Continue to watch the recording as normal, using playback controls as required.

To skip quickly backwards though a recording (fast rewind):

1. Change the camera control to "far".
2. Use the **left** control to engage rewind mode. The video will rapidly rewind, skipping several seconds backwards at a time, and the playback time will be shown in the corner of the screen.
3. When you reach the point from which you wish to resume playback, press either **up** to resume or **down** to pause playback as required.
4. If the start of the recording is reached, rewind will stop and playback will pause.
5. Continue to watch the recording as normal, using playback controls as required.

Refer to the table below for assistance interpreting the icons that appear on-screen.

Icon	Icon Description
fast forward	Playback is in fast forward mode. The icon will blink while the recording is being fast forwarded.
rewind	Playback is in fast rewind mode. The icon will blink while the recording is being rewound.

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Related Topics

- Using an Auto Attendant
- Configuring Recording Settings
- Creating Video Recordings
- Using Streaming to View Recordings

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Using an Auto Attendant

Your system administrator may have set up an auto attendant for you to use to view stored recordings. An auto attendant presents you with a menu from which you can choose a recording to watch.

Calling an Auto Attendant

There are typically two different ways to call an auto attendant using your video endpoint. Depending on how the IP VCR is configured, neither, one or both of these will be available to you. Your system administrator should provide you with information about which method you should use:

- Enter the IP address or host name of the IP VCR device
- Dial using a standard E.164 phone number

Accessing the Main Menu

Once you successfully connect to the IP VCR, the main menu displays on your video screen, and you should also hear the audio instructions playing.

Navigate the auto attendant using the Far-End Camera Controls (FECC) on your video endpoint. Use the up and down controls to highlight the option or item you require; use right to make your selection.

Typically, you will have these options:

Record this session

This option enables you to record the video your endpoint is sending to the IP VCR. You will be presented with the Recording Console (see Using the Recording Console). From here you will be able to monitor your video before and during recording.

Replay a Recording

All recordings stored on the IP VCR display here, listed by recording name. Unless a recording is PIN-protected, highlighting a recording will show a small preview.

If you select a protected recording, you will be presented with the PIN entry screen, and will hear audio prompts playing. Use your endpoint's numeric keypad to enter the PIN, followed by #. (Note that some endpoints require you to activate the keypad before dialing, for example by pressing the # key.)

When you have finished watching a recording or making a new recording, simply hang up. If you need to make or watch another recording, you will need to make a new call to the auto attendant.

Related Topics

- Using the IP VCR to Make a Recording
- Understanding Recording Lists
- Using Streaming to View Recordings

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Using the Recording Console

The Recording Console allows you to make recordings interactively. That is, it allows you to monitor the recording while it is in progress, to check that the view is as you require.

Refer to the sections below for further information on using the Recording Console:

- Connecting to the Recording Console
- Understanding the Recording Console Display
- Controlling the Recording Console

Connecting to the Recording Console

Calling in via the Auto Attendant

To access the Recording Console by calling the IP VCR via the Auto Attendant, follow these steps:

1. Confirm with your system administrator that you may call the Auto Attendant of the IP VCR, either by using the IP address of the IP VCR or by dialing a phone number.
2. Connect to the Auto Attendant using the method chosen in the previous step.
3. Navigate the Auto Attendant menus (see Using an Auto Attendant) to select **Record this session**.
4. The Recording Console will be displayed.

Being called by the IP VCR

The may use the IP VCR web interface to call out to your video endpoint and display the Recording Console. To connect to the Recording Console in this way, follow these steps:

1. Log into the IP VCR web interface as an *administrator* or *user* (see Logging in to the Web Interface).
2. Use your browser to navigate to **Home > Recordings**.
3. Press **Call out and record**. The recording parameters page will be displayed (see Calling Out From the IP VCR).
4. Name your recording, and identify the endpoint you wish to call out to.
5. Select **Use recording console display**.
6. Press **Call endpoint** or **Call selected endpoint**.
7. Answer the call on the video endpoint. The Recording Console will be displayed.

Understanding the Recording Console Display

The Recording Console display is intentionally simple. Refer to the table below for a description of the different parts of the display:

Control	Control Description
Preview window	In the center of the screen, a window shows a live preview of the video being sent by the endpoint to the IP VCR. Use this preview to ensure the recorded view is composed as you require before starting to record. You may also monitor this view whilst recording. Note that although the audio portion of the call will also be recorded, this is not sent back to the endpoint like the video preview, as this would cause undesirable feedback effects.
Status	A status indication is displayed in the bottom left-hand corner of the Recording Console. It shows the current state of recording. When you first enter the Recording Console, the status indication will show *paused*.

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Recording length	The length of the recording is shown in the bottom right-hand corner of the screen, as minutes and seconds. When you first enter the Recording Console, this will show a zero-length recording. The recording length will update in real-time as recording progresses. Use this as a guide to how long your recording will be.
Recording indicator	The recording indicator is shown only whilst recording is in progress, and hence will not be visible when you first enter the Recording Console. When you start recording, this indicator will blink near the top right-hand corner of the screen.

Controlling the Recording Console

When you first enter the Recording Console, you will hear audio instructions on which controls you may use. Recording will not start until you are ready. Refer to the table below for details:

Control	Control Description	Usage Tips
Up	Starts recording. The status line will change from *paused* to *resuming...* then to *recording*.	When you start recording, the IP VCR waits for a suitable moment before actually starting to record. This is to ensure the best possible quality video is recorded. During this time the status line shows *resuming...*. Be sure to wait until the status line says *recording* before starting to speak.
Down	Stops recording. The status line will change from *recording* to *finished*.	When you have finished recording, you will not be disconnected from the IP VCR unless you hang up the call. Note that even when you have finished recording, IP VCR resources are still in use until the call is ended, possibly preventing other users from making recordings in the meantime.

You do not have to explicitly stop recording. If you wish, you may simply hang up the call when you have finished. Whether you press stop or simply hang up, the recording will be automatically stored by the IP VCR.

Related Topics

- Using an Auto Attendant
- Calling Out From the IP VCR

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Using the IP VCR to Make a Recording

The IP VCR allows you to create recordings in a number of different ways. These include interactive recording using an H.323 endpoint, and transparent recording of point-to-point calls with another endpoint. The following pages provide detailed explanations of the options available. Refer to these for more information.

- Non-Interactive Recording
- Using the Recording Console
- Recording Point-to-Point Calls

In addition to creating recordings using the IP VCR, it is possible to upload existing recordings. Refer to Transferring Recordings for more information.

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Non-interactive recording

Depending on the configuration of the IP VCR, you may be able to make recordings non-interactively. That is, once connected to the IP VCR, recording takes place automatically, and with no feedback to the user. If you would prefer to have more feedback when making recordings, consider using the Recording Console (see Using the Recording Console). Otherwise, refer to the sections below for further information on making non-interactive recordings:

- Understanding the Non-Interactive Recordings
- Connecting in Order to Make a Recording
- Controlling the Recording

Understanding the Non-Interactive Recordings

Non-interactive recording gives no feedback as to the status of recording. The IP VCR will not send video to your endpoint, typically causing your endpoint to display a blank screen. You will not be able to monitor how the recording will look.

When the call to or from the IP VCR is connected, recording will typically start immediately. However, the IP VCR may have been configured to delay recording until coherent video is seen. Your system administrator may have configured the IP VCR in this way to ensure the best quality of recordings.

If you are unsure of whether the IP VCR will start recording immediately or not, wait a few seconds before starting to speak; this will ensure the best quality recording in all circumstances.

Connecting in Order to Make a Recording

Calling the IP VCR From a Video Endpoint

To make a non-interactive recording by calling the IP VCR using your video endpoint, follow these steps:

1. Confirm with your system administrator that the *Default incoming call action* of the IP VCR is to answer incoming calls by recording them immediately (non-interactively) (see Configuring Global Connection Settings).

   Alternatively, determine whether the IP VCR has had a *Recording gatekeeper id* configured, allowing you to make a recording by dialing a phone number (see Configuring the Gatekeeper Settings).
2. Connect to the IP VCR using the method chosen in the previous step.
3. Recording will start when the call is answered.

Being called by the IP VCR

You may use the IP VCR web interface to call out to your video endpoint and record the session non-interactively. To make a recording in this way, follow these steps:

1. Log in to the IP VCR web interface as an *administrator* or *user* (see Logging in to the Web Interface).
2. Use your browser to navigate to **Home > Recordings**.
3. Press **Call out and record**. The recording parameters page will be displayed (see Calling Out From the IP VCR).
4. Name your recording, and identify the endpoint you wish to call out to.
5. Ensure **Use recording console display** is not selected.
6. Press **Call endpoint** or **Call selected endpoint**.
7. Answer the call on the video endpoint. Recording will start.

Controlling the Recording

The nature of non-interactive recording is that the user has little or no control over recording. When you have finished recording, simply hang up the call to end and store the recording.

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Related Topics

- Using the Recording Console
- Configuring Global Connection Settings
- Configuring the Gatekeeper Settings
- Logging in to the Web Interface
- Calling Out From the IP VCR

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Understanding the Recordings List

The Recordings list displays information about stored recordings. To view the recordings list, go to **Home > Recordings**, then review the information below for an explanation of the fields that display:

- Stored Recordings
- Recording Controls

Stored Recordings

Stored recordings are recordings that have been made using the IP VCR or uploaded to the IP VCR (see Transferring Recordings). For each stored recording, the following information displays:

Field	Field Description	Usage Tips
Watch	Displays the recording streaming page. Some recordings may require a PIN to access this feature.	See Using Streaming to View Recordings for more information.
Name	Displays the name of the recording. Depending on how the recording was made, this will be a name entered by the user, or a name chosen automatically by the IP VCR.	You may rename a recording by clicking on its entry in the list and editing the name field (see Viewing and Updating Recording Details).
Status	Provides a brief indication of whether this recording is in use (recording or playback in progress), or not.	A recording that is not being made or played back is referred to as *Idle*.
H.323 gatekeeper	If a recording has a *gatekeeper id* set, this field shows the state of the gatekeeper registration, or *n/a* if no identifier is set.	To register a recording with an H.323 gatekeeper, the IP VCR must be configured with a gatekeeper (see Configuring the Gatekeeper Settings).
Length	Displays the length of the recording.	
Recorded at	Displays the time at which a recording was started or uploaded.	

Recording Controls

Removing recordings

To remove recordings from the IP VCR select which recordings you wish to remove from the list by clicking their associated checkboxes, and press **Delete selected**. Recordings will be permanently removed.

Calling out to make a recording

You may initiate a recording session from the IP VCR. To do this, press **Call out and record** to display the *recording parameters* page. From here, you may specify an endpoint to call, either directly by entering an IP address, or by selecting a pre-configured endpoint. For more details see Calling Out From the IP VCR.

Uploading recordings

You may upload recordings directly to the IP VCR. To upload a recording, press **Upload recording** to display the upload page. From here you may specify the file you wish to upload as well as a name for the recording. For more details see Transferring Recordings.

Related Topics

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- Viewing and Updating Recording Details
- Calling Out From the IP VCR
- Transferring Recordings
- Using Streaming to View Recordings
- Understanding the Connections List
- Configuring the Gatekeeper Settings

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Transferring Recordings

Although you can make and view recordings with the IP VCR you are not restricted to watching only recordings made with the IP VCR. Neither must you use the IP VCR to watch recordings you have made. Refer to the sections below for how to transfer recordings to and from the IP VCR.

- Uploading recordings onto the IP VCR
- Downloading recordings from the IP VCR

Uploading recordings onto the IP VCR

As well as using the IP VCR to make recordings directly by using automatic and interactive recording of sessions or point-to-point calls, it is also possible to upload video clips via the web interface.

To upload a video clip to the IP VCR, follow these steps:

1. Use your browser to view the IP VCR web interface, and go to **Home > Recordings**.
2. Click **Upload recording**. The recording upload page will be displayed.
3. Click **Browse** to locate the *.codian* or *MPEG 1* format file that you wish to upload. Consult your system administrator if you are unsure of the format of a particular file.
4. Choose a name for the uploaded recording. This name will be displayed in the recordings list and in the auto attendant menus.
5. Click **Commence upload** to begin the transfer of the file to the IP VCR.

Note that the upload can take several minutes for long recordings. Do not navigate away from the upload page until the upload has completed or it may be aborted.

.codian and *MPEG 1* format files may be uploaded via the IP VCR web interface in this way.

When the upload is complete, the video clip will display in the *Recordings List* (see Displaying Recordings Lists), and may be played back via H.323 or streaming like any other recording.

Downloading recordings from the IP VCR

You may download recordings from the IP VCR which can then be transferred to another IP VCR, or played on your PC using any application that supports *MPEG* video clips, such as Quicktime Viewer.

Clips may be downloaded from the IP VCR in one of two formats: *MPEG* and *.codian*. Clips downloaded in *MPEG* format may be played on a PC as discussed above; either format may be transferred to another IP VCR, though the (bigger) *.codian* files will transfer much more quickly.

To download a recording from the IP VCR follow these steps:

1. Use your browser to view the IP VCR web interface, and go to **Home > Connections**.
2. Locate the recording you wish to download in the *Stored recordings* list, and click on its name
3. The *Recording details* page will be displayed (see Viewing and Updating Recording Details).
4. Click **download MPEG file** to download the recording in *MPEG* format, or **download recording** to download in *.codian* format.
5. Save the file

Related topics

- Displaying Recordings Lists
- Viewing and Updating Recording Details

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Viewing and updating recording details

To view recording information for a particular recording, use your browser to view the IP VCR web interface, and go to **Home > Connections**. Locate the recording you are interested in using the *Stored recordings* list, and click on its name.

The recording information page allows you to change the displayed name of a stored recording, set up a gatekeeper id and add a PIN. In addition, you may review extended details, and download files in a number of formats for subsequent playback or transferal to another IP VCR.

Refer to the following sections for further details:

- Recording Configuration
- Recording Status
- Recording Controls
- Summary Information

Recording Configuration

You may review and edit a number of details pertaining to a recording. Make changes as required, and then click **Update configuration**. Refer to the table below for more information on the fields displayed:

Field	Field Description	Usage Tips
Name	Displays the current name of the recording. You may specify a new name if required.	The recording name is shown in the recordings list and in auto attendant menus. You may not rename a recording with the same name as an existing recording.
Gatekeeper id	You may specify a gatekeeper id that users may call from their video endpoint. They will be connected directly to a playback of this recording.	Your H.323 gatekeeper must be configured to allow this. Users may need to prefix this gatekeeper id if a prefix is set in the IP VCR gatekeeper registration. Consult your system administrator if you are unsure.
PIN	You may specify a security PIN to restrict access to a recording.	If a PIN is set, users wishing to watch the recording using a video endpoint or using streaming will be asked for the PIN before they can proceed.

Recording Status

Full details of a recording are shown here. Refer to the table below for more information on the fields displayed:

Field	Field Description	Usage Tips
Time of recording	Displays the time and date when this recording was started or uploaded.	
Duration	Displays the length of the recording.	
MPEG media	Displays full details about the MPEG portion of the recording.	Use this information to determine if the MPEG file will be suitable for your requirements before downloading.
Streaming media	Displays full details about the streaming portion of the recording.	Use this information to see what streaming bandwidths are available. If a recording was uploaded as an MPEG video clip, the streaming information will not be available.
MPEG file size (bytes)	Shows the size of the MPEG portion of the recording.	Press **download MPEG file** to transfer the file to your PC (see Transferring Recordings).
Complete recording file size (bytes)	Shows the size of the combined MPEG and streaming portions of the recording.	Press **download recording** to transfer the *.codian* file to your PC (see Transferring Recordings).

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Gatekeeper state	Shows the registration status of this recording with the gatekeeper, if a gatekeeper id has been set	
Active playbacks	Displays the number of playbacks of this recording currently in progress.	This figure includes streaming playbacks.
Active downloads	Displays the number of downloads of this recording currently in progress.	
Completed playbacks	Displays the number of playbacks of this recording that were once in progress but are no longer.	
Completed downloads	Displays the number of downloads of this recording that have completed.	

Recording Controls

You may call into the IP VCR from an H.323 video endpoint to watch this recording. Alternatively, the IP VCR can call out to the endpoint and begin playback when the call is answered. To do this, click **Call out and play recording**. For more details, see Calling Out From the IP VCR.

To permanently remove this recording from the IP VCR, click **Delete this recording**. Any active connections to this recording will be terminated.

Summary information

You may wish to give users instructions on how to view this recording using streaming, information on when it was made and so on. Click the **Summary information** icon to display further details about this recording. The information may be copied to the clipboard for convenience.

Related Topics

- Transferring Recordings

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Calling Out From the IP VCR

As well as using your video endpoint to call into the IP VCR in order to make and watch recordings, you may also perform both of these functions using the IP VCR to call out to your endpoint. The sections below explain how to call out from the IP VCR to make and watch recordings:

- Calling Out to Watch a Recording
- Calling Out to Make a Recording
- Understanding the Playback and Recording Parameters Pages

Calling Out to Watch a Recording

To call a video endpoint from the IP VCR in order to play a stored recording, follow these steps:

1. Use your web browser to choose **Home > Recordings**
2. Use the *recording list* to select the recording you wish to watch.
3. Click on the recording name. The *recording information* page will be displayed (see Viewing and Updating Recording Details).
4. Press **Call out and play session**. The *playback parameters* page will be displayed.
5. Refer to the table below for details of the fields displayed.
6. Press **Call endpoint** or **Call selected endpoint**. The IP VCR will attempt to call the specified endpoint.
7. Answer the call on your video endpoint to commence playback.
8. Watch the recording as if you had called into the IP VCR. Similarly, you may control progress using the Far-End Camera Controls of your video endpoint (see Using a Video Endpoint to Watch Recording).

Calling Out to Make a Recording

To call a video endpoint from the IP VCR in order to make a new recording, follow these steps:

1. Use your web browser to choose **Home > Recordings**
2. Press **Call out and record**. The *recording parameters* page will be displayed.
3. Refer to the table below for details of the fields displayed.
4. Press **Call endpoint** or **Call selected endpoint**. The IP VCR will attempt to call the specified endpoint.
5. Answer the call on your video endpoint. Recording will either start immediately (see Non-Interactive Recording) or the Recording Console will be displayed (see Using the Recording Console).
6. Continue to make your recording as if you had called into the IP VCR.

Understanding the Playback and Recording Parameters Pages

Whether calling out to playback or to record, you must specify which endpoint you wish to call. The *Playback parameters* and *Recording parameters* pages are very similar. Refer to the table below for details, with differences noted as appropriate:

Field	Field Description	Usage Tips
Playback parameters		
	There are no playback-specific parameters	
Recording parameters		
Name of recording to create	Specify a name for the new recording.	The name you choose will be displayed in the *Recordings list* (see Displaying the Recordings List), and in the auto attendant menu. You may not choose a name that is already used by another recording.

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Use recording console display	Check this field to all the endpoint to use the *Recording console* to make their recording. Leave it unchecked to make a non-interactive recording.	See Using the Recording Console and Non-Interactive Recording for more information on the implications of this option
New H.323 endpoint		
Host name or IP address	Specify the host name or IP address of the endpoint you wish to call out to.	You may alternatively specify an E.164 number if you also select an *H.323 gateway*.
H.323 gateway	If you wish to call the endpoint using an E.164 number, you must select an H.323 gateway from the list of configured gateways.	If you are calling by host name or IP address, you need not specify a gateway.
Preferred video size	Select from the options to control the size of picture sent to and received from the endpoint.	You may choose *default configured behaviour*, in which case the preferred video size is chosen to be the same as that set in the global connection settings (see Configuring Global Connection Settings
Preferred bandwidth from IP VCR	Use these fields to specify the preferred call bandwidth from the IP VCR to the endpoint and from the endpoint to the IP VCR, respectively.	If you choose *use default value*, the preferred bandwidth is chosen to be the same as that set in the global connection settings.
Preferred bandwidth to IP VCR		
New H.323 endpoint		
<Pre-configured endpoints>	If you have pre-configured endpoints on the IP VCR you may simply choose one to call by selecting it in the list and clicking **Call selected endpoint**.	

Related Topics:

- Displaying the Recordings List
- Using a Video Endpoint to Watch Recording
- Viewing and Updating Recording Details
- Using the Recording Console
- Non-Interactive Recording

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Configuring Global Connection Settings

You can modify the global connection settings for the IP VCR choosing by **Home > Settings > Connections**. However, many of these values can be overwritten by other IP VCR or endpoint settings.

- H.323 Settings
- Advanced Settings

H.323 Settings

Refer to this table for assistance configuring the H.323 settings. After making any configuration changes, click **Apply Changes**.

Field	Field Description	Usage Tips
Default bandwidth from IP VCR	Identifies the network capacity (measured in bits per second) used by the media channels established by the IP VCR to a single participant.	When the IP VCR makes a call to a H.323 endpoint, the IP VCR chooses the maximum bandwidth that is allowed to be used for the media channels which comprise that call. This field sets that maximum bandwidth, and is the total bandwidth of the audio channel and video channel combined. This setting can be overridden by individual H.323 endpoints' *Preferred bandwidth from IP VCR* values.
Default bandwidth to IP VCR	Sets the bandwidth that the IP VCR will advertise to the H.323 endpoint when it calls it.	This setting can be overridden by individual H.323 endpoints' *Preferred bandwidth to IP VCR* values.
Default incoming call action	Determines what the user experience will be when they call the IP VCR. • **Connect to auto attendant** The user will be presented with the default auto attendant from which they may view stored recordings or potentially make a recording of the session (see Using an Auto Attendant). • **Record session** The user will be presented with the video recording screen (see Using the Recording Console), allowing them to record the video from their endpoint. • **Disconnect caller** Users may not call the IP VCR in this way; the call will be terminated.	Recording a session consumes one recording port.
Show recording participant names	Controls whether participant names will be overlaid onto the recorded video when making a point to point recording.	You may want to disable the overlaying of names by the IP VCR if the devices in the call add their own text to their video streams.

Advanced Settings

You typically only need to modify these advanced settings if you are working with a support engineer or setting up more complicated configurations.

Field	Field Description	Usage Tips

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Audio codecs from IP VCR	Restricts the IP VCR's choice of audio codecs to be used for receiving audio from the endpoints.	When communicating with a H.323 endpoint, the IP VCR receives a list of supported audio codecs from the endpoint. The IP VCR chooses an audio codec from those available, and sends audio data to the endpoint in that format. The G.711 codec is used for streaming as well as for communication with H.323 endpoints, so disabling it also disables audio for streaming viewers.
Audio codecs to IP VCR	Determines which audio codecs the IP VCR advertises to remote H.323 endpoints, restricting the endpoints' choice of channels available for sending audio data to the IP VCR.	
Video codecs from IP VCR	Restricts the IP VCR's choice of video codecs to be used for receiving video from the endpoints.	When communicating with a H.323 endpoint, the IP VCR receives a list of supported video codecs from the endpoint. The IP VCR chooses a video codec from those available, and sends video data to the endpoint in that format.
Video codecs to IP VCR	Determines which video codecs the IP VCR advertises to remote H.323 endpoints, restricting the endpoints' choice of channels available for sending video data to the IP VCR.	
Video format	Sets the video format used and transmitted by the IP VCR. • **NTSC** The IP VCR will favour transmitting video at 30 frames per second, at SIF-like resolutions. • **PAL** The IP VCR will favour transmitting video at 25 frames per second, at CIF-like resolutions.	NTSC is typically used in North America, while PAL is typically used in the UK and Europe. Setting this field to match the most common type of endpoint used with the IP VCR will improve the smoothness of the video sent by the IP VCR to the endpoints. Regardless of how this setting is configured, the IP VCR will accept video from endpoints at either frame-rate.
Maximum transmitted video packet size	Sets the maximum payload size (in bytes) of the packets sent by the IP VCR for outgoing video streams (from the IP VCR to connected video endpoints).	Typically, you only need to set this value to lower than the default (1400 bytes) if there was a known packet size restriction in the path between the IP VCR and potential connected endpoints. Video streams generally contain packets of different lengths. This parameter only sets the *maximum* size of a transmitted network datagram. The IP VCR optimally splits the video stream into packets of this size or smaller. Thus, most transmitted packets will not reach this maximum size.
Receive bit rate optimization	Enables the IP VCR to send bandwidth control messages to optimize the video bandwidth being used.	The IP VCR can send these messages to H.323 endpoints requesting that the bandwidth of the video that they are sending be decreased or increased, up to the maximum bandwidth of the channel.
Flow control on video errors	Enables the IP VCR to request that the endpoint send lower speed video if it fails to receive all the packets which comprise the far end's video stream.	The IP VCR can send these messages to H.323 endpoints requesting that the bandwidth of the video that they are sending be decreased based on the quality of video received by the IP VCR. If there is a bandwidth limitation in the path between the endpoint and the IP VCR, it is better for the IP VCR to receive every packet of a lower rate stream than to miss some packets of a higher rate stream.

Related Topics

- Using an Auto Attendant
- Creating Video Recordings

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Using Streaming to View Recordings

The Codian IP VCR supports streaming, which involves sending recorded media (audio and video) to a remote computer, allowing the user to watch and listen to the recording.

To view a recording using streaming, go to **Home > Recordings** and click **Watch** next to a stored or in-progress recording. Refer to the table below for tips.

Embedded unicast streaming

Displays video in a window within the web browser window. Refer to the table below to choose the most appropriate settings for your needs

Field	Field Description	More Information
Media	Indicates the preferred bandwidth to use for streaming. The exact options available depend on how the IP VCR was configured when the recording was made; typically you may choose to stream the audio portion only, or audio and video at one of two bandwidths.	Consider your network speed when choosing a bandwidth. For example, you might use a lower bandwidth if you are connecting over ISDN or a higher bandwidth over a T1. Use *Audio only* if you are not interested in the video or are connecting over a very low bandwidth link.
Viewer	Specifies the viewer to use for streaming video	

Click **Start streaming** to view the recording.

Playback controls when web streaming

If you watch a recording using web streaming, control of playback is performed using the streaming application you are using. To play, pause, fast-forward and so on, refer to the documentation that accompanies your streaming viewer.

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Displaying Gatekeeper Settings

You can configure the IP VCR to use a gatekeeper, which can make it easier for end-users to watch and make recordings using directory numbers rather than requiring them to know the IP address or host name of the IP VCR. Choose **Home > Settings > Gatekeeper**.

- Gatekeeper Settings
- Gatekeeper Status

Gatekeeper Settings

Refer to this table for assistance configuring the gatekeeper settings. After making any configuration changes, click **Apply Changes**.

Field	Field Description	Usage Tips
H.323 gatekeeper usage	Enables the IP VCR to use an H.323 gatekeeper for registration of numeric identifiers for its conferences and/or auto attendants.	If this is set to *Disabled* then no gatekeeper registrations will be attempted (and existing registrations will be torn down), regardless of other gatekeeper or per-recording settings. Whether a call involves consultation with the configured gatekeeper also depends on the *Port A* and *Port B* settings. For all incoming calls, and outgoing calls dialled by address rather than by E.164 phone number, the gatekeeper will be used to validate the connection only if the network port over which the connection is made is selected here.
H.323 gatekeeper address	Identifies the network address of the gatekeeper to which IP VCR registrations should be made.	This can be specified either as a host name or as an IP address. This field will have no effect if *H.323 Gatekeeper usage* (see above) is set to *Disabled*.
Gatekeeper registration type	This option controls how the IP VCR identifies itself when registering with its configured gatekeeper. The choices are: • **Terminal / Gateway** register as a gateway if there are any prefix registrations required, or as a terminal if not • **Gateway** always register as a gateway	Not all H.323 gatekeepers allow all types of devices to register with them, and this option allows the IP VCR to work with gatekeepers of varying capabilities. The simplest (and generally most supported) type of registration is "terminal", but this type does not allow the IP VCR to register a "Point to point call incoming prefix". Hence, the "Terminal / Gateway" option normally registers as a terminal, but will register as a gateway if a point to point call incoming prefix is configured. To always register as a gateway, irrespective of whether or not a point to point prefix has been configured, use the "Gateway" option.

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Prefix for IP VCR registrations	Specifies an optional group of digits that are added to the beginning of each recording's *gatekeeper id* before registering it with the H.323 gatekeeper.	Recordings registered with a gatekeeper have a unique number that may be entered from a video-conferencing endpoint to connect directly to the recording. This eliminates the need for users to navigate the auto attendant or to know the IP address of the IP VCR. To usefully partition the dialing space, you might need to ensure that all registrations from a single IP VCR start with the same sequence of digits. Using registration prefixes also can benefit large-scale dial plan changes. For example, you can change all IP VCR registrations to begin with "121" instead of "11" by changing a single IP VCR configuration field rather than individually amending every recording's associated gatekeeper id. This field will have no effect if *H.323 gatekeeper usage* disabled.
(Mandatory) H.323 id to register	Use this field to specify an identifier that the IP VCR can use to register itself with the H.323 gatekeeper.	Before the IP VCR can register any recordings with the H.323 gatekeeper, it must make a unit-wide registration. This field is not required and will have no effect if *H.323 gatekeeper usage* is disabled.
Auto attendant gatekeeper ID	Use this field to specify an E.164 number that users may call to access the Auto Attendant.	If this field is unset, users will only be able to access the auto attendant if the *Default incoming call action* is set to connect to the auto attendant.
Recording gatekeeper ID	Use this field to specify an E.164 number that users may call to make non-interactive recordings.	If this field is unset, users will still be able to make recordings by calling out from the IP VCR to their video endpoint
Point to point call incoming prefix	Use this field to specify a sequence of digits the H.323 gatekeeper may use to identify which calls to route though the IP VCR for the purposes of making point-to-point recordings.	This field is required if you wish users to be able to make point-to-point recordings.
Point to point call outgoing prefix	Use this field to specify an optional sequence of digits to add when the IP VCR tries to make the outgoing part of a point-to-point call that has been routed through it.	When making point-to-point calls through the IP VCR, the *incoming prefix* is stripped from the dialed number and the outgoing prefix added before the outgoing part of the call is attempted. Your dial plan may not require you to specify an outgoing prefix.

Gatekeeper Status

The IP VCR also displays brief status information about any registered gatekeepers.

Field	Field Description	Usage Tips
Gatekeeper status	Displays the IP address of the gatekeeper currently being used by the IP VCR.	This information might be useful if the gatekeeper has been specified with a host name rather than with an IP address.
Number of active registrations	Displays the number of E.164 numbers that the IP VCR has registered with the gatekeeper. It also shows how many registrations are in progress but are not fully registered yet.	

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Understanding the Connections Lists

The Connections list displays information about all recordings and playbacks currently in progress, as well as calls to the Auto attendant. To view the connections list, go to **Home > Connections**, then review the information below for an explanation of the fields that display:

- Active Connections
- Connection Controls

Active connections

An active connection refers to any call into or out of the IP VCR (whether to watch or make a recording), or a web streaming session. For each connection, the following information displays:

Field	Field Description	Usage Tips
Name	Shows either the name of the recording being made or played back. Click on the name to display the *connection status* page, which shows more detailed connection information (see Viewing Connection Status).	This field may alternatively display a special purpose name, for example *Auto attendant* if the auto attendant is in use and a recording has not yet been selected for playback.
Description	Provides a brief description of the type of connection, for example *Streaming playback*, *Recording* or *Auto attendant*.	Sort the list by this field to group all active recordings for easy reference.
Status	Provides a more detailed indication of the connection progress.	A recording session may indicate that recording has yet to start, while a playback session may show how far through the recording playback has reached, as well as the total recording length.
Start time	Shows the time at which the connection was created.	A connection is created for each call into or out of the IP VCR.
Preview	Displays a sample still video capture of either the playback or recording, if available.	For recording sessions, the video media being recorded is previewed; for H.323 playback, the video media being played back is previewed. A preview may not be available for all connections, for example when web streaming.

Connection Controls

Ending connections

To end a connection, either recording or playback, select which connection you wish to end by clicking its associated checkbox in the *active connections* list, and press **Disconnect selected**. You may end several connections at once with this method.

Related Topics:

- Viewing Connection Status
- Understanding the Recordings List
- Using an Auto Attendant

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Viewing connection status

Extended details about active connections may be viewed on the *connection status* page. To view these:

1. Go to **Home > Connections**.
2. Click a connection name to display the *connection status* page.

An overview of the connection status is shown on this page. Basic connection details are shown, as well as per-endpoint details. For playback and direct recording connections, information for just one endpoint is shown; for point-to-point recordings, information for both endpoints is shown. Refer to the sections below for more details:

- Connection Status
- Endpoint Status
- Extended Endpoint Information

Connection Status

For each connection, basic information is displayed, such as when playback or recording started.

Endpoint Status

Endpoint specific information is displayed for each endpoint associated with a connection. For playback and direct recording connections, information for just one endpoint is shown; for point-to-point recordings, information for both endpoints is shown. The same information is shown whether one or two endpoints are displayed.

Endpoint information is not available for streaming playback connections.

Extended Endpoint Information

Further endpoint information and control can be accessed via the page tabs. Refer to the following sections for more details:

- Viewing a Connected Endpoint's Display
- Viewing a Connected Endpoint's Camera
- Viewing a Connected Endpoint's Audio Signals
- Viewing a Connected Endpoint's Media Statistics

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Viewing a Connected Endpoint's Display

When watching recording, you can monitor the playback shown on a user's video endpoint. You may also monitor the display when making point-to-point recordings. The monitor display is not available for streaming playback connections. To monitor the display:

1. Go to **Home > Connections**.
2. Click a connection name to display the *connection status* page.
3. Click the **Display** tab.
4. Select which endpoint's display you wish to view (point-to-point recordings only).

Display monitoring is not available for non-interactive recordings.

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Viewing a Connected Endpoint's Camera

When making a recording, you can control the viewing angle, zoom and focus of the camera on your video endpoint. These settings are not available for streaming playback connections. To customize the view:

1. Go to **Home > Connections**.
2. Click a connection name to display the *connection status* page.
3. Click the **Camera** tab.
4. Select which endpoint's camera you wish to control (point-to-point recordings only).

Camera preview and control is not available for any kind of playback connection.

Field	Field Description	Usage Tips
Movement	Click on one of the directional arrows to change the view direction of the camera.	Not all endpoints will respond to these controls. In particular, endpoints with fixed cameras such as most webcams.
Zoom	Click on one of the magnifying options to zoom the view in or out.	Not all endpoints will respond to the zoom controls, possibly including those that do respond to the *Movement* controls
Focus	Click on one of the adjustment options to improve the clarity of the image.	Not all endpoints will respond to the focus controls, possibly including those that do respond to the *Movement* controls

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Viewing a Connected Endpoint's Audio Signals

In general, the audio settings are for advanced troubleshooting. Audio settings are not available for streaming playbacks. You can view these settings by selecting this option:

1. Go to **Home > Connections**.
2. Click a connection name to display the *connection status* page.
3. Click the **Audio** tab.
4. Select which endpoint's audio signals you wish to view (point-to-point recordings only).

The information and controls displayed are mainly for troubleshooting audio problems with recordings.

Audio information is not available for streaming playback connections.

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Viewing a Connected Endpoint's Media Statistics

You may view statistics about the video and audio streams to and from the IP VCR while making and watching recordings. The statistics are not available for streaming playback connections. To view the connection statistics:

1. Go to **Home > Connections**.
2. Click a connection name to display the *connection status* page.
3. Click the **Statistics** tab.
4. Select which endpoint's display you wish to view (point-to-point recordings only).

Media Statistics

Media statistics provide detailed information about the actual voice and video streams (Realtime Transport Protocol (RTP) packets).

Refer to the table below for additional information.

Field	Field Description	Usage Tips
Audio		
Receive stream	Displays the audio codec in use, along with the current packet size (in milliseconds) if known.	
Receive address	Displays the IP address and port from which the media is originating.	
Received jitter	Displays the apparent variation in arrival time from that expected for the media packets (in milliseconds). The current jitter buffer also displays in parentheses.	You should expect to see small values for this setting. Consistently large numbers typically imply potential network problems. The jitter buffer shows the current playout delay added to the media to accommodate the packet arrival jitter. Large jitter values indicate a longer buffer.
Received energy	Represents the audio volume originating from the endpoint.	
Packets received	Displays the number of audio packets destined for the IP VCR from this endpoint.	
Packet errors	Displays the number of packet errors, including sequence errors, packets of the wrong type, and so on	You should expect to see small values for this setting. Consistently large numbers typically imply potential network problems.
Frame errors	Displays frame errors, as *A*/*B* where *A* is the number of frame errors, and *B* is the total number of frames received	A frame is a unit of audio, the size of which is dependent on codec. You should expect to see small values for this setting. Consistently large numbers typically imply potential network problems.
Transmit stream	Displays the audio codec being sent from the IP VCR to the endpoint, along with the chosen packet size in milliseconds	
Transmit address	Displays the IP address and port to which the media is being sent.	
Packets sent	Displays a count of the number of packets that have been sent from the IP VCR to the endpoint	
Video		
Receive stream	Displays the type of codec in use and the size of the picture that the IP VCR is receiving from the specific participant. If the picture is a standard size (CIF/QCIF/4CIF/SIF) then this is shown in parentheses afterwards.	

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Receive address	Displays the IP address and port (<*IP address*>:<*port*>) of the device from which video is being sent	
Channel bit rate	Displays the negotiated bit rate available for the endpoint to send video in.	This value represents the maximum amount of video traffic that the remote endpoint will send to the IP VCR. It may send less data than this (if it does not need to use the full channel bit rate or the IP VCR has requested a lower rate), but it should not send more.
Receive bit rate	Displays the bit rate (in bits per second) that the IP VCR has requested that the remote endpoint sends. The most-recently measured actual bit rate displays in parentheses.	This value might be less than the *Channel bit rate* if: • the IP VCR detects that the network path to the remote endpoint has insufficient capacity to maintain a higher traffic rate, or • that endpoint's video stream's position in the active conference compositions does not require it. For example, if all participants in the conference were watching a single participant at full screen, no other participants' video streams would be needed at all. So the IP VCR would request that those streams were sent at a low bit rate in order to avoid needless use of network bandwidth.
Received jitter	Represents the variation in video packet inter-arrival time at the IP VCR	
Packets received	Displays the number of video packets destined for the IP VCR from this endpoint	
Packet errors	Displays video packet-level errors such as sequence discontinuities, incorrect RTP details, and so on. not the same as packets where the contents (the actual video data) is somehow in error.	This value does not represents packets in which the actual video data in the packets is in error.
Frame rate	Displays the negotiated frame rate from the endpoint. The most-recently measured actual frame rate displays in parentheses.	
Frame errors	Displays the number of "broken" frames verses the total number of video frames received	
Transmit stream	Displays the codec, size and type of video being sent from the IP VCR to the endpoint	
Transmit address	Displays the IP address and port of the device to which the IP VCR is sending video.	
Channel bit rate	Displays the negotiated available bandwidth for the IP VCR to send video to the endpoint in	
Transmit bit rate	Displays the bit rate the IP VCR is attempting to send at this moment, which may be less than the channel bit rate which is an effective maximum. The actual bit rate, which is simply the measured rate of video data leaving the IP VCR, displays in parentheses.	
Packets sent	The number of video packets sent from the IP VCR to this endpoint	
Frame rate	Displays the negotiated frame rate from the endpoint. The most-recently measured actual frame rate displays in parentheses.	
Temporal/ spatial	Displays a number that represents the tradeoff between video quality and frame rate.	A smaller number implies that the IP VCR prioritizes sending quality video at the expense of a lower frame rate. A larger number implies that the IP VCR is prepared to send lower quality video at a higher frame rate.

Control Statistics

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Control statistics provide information about the control channels that are established in order that the endpoints can exchange information about the voice and video streams (Real Time Control Protocol (RTCP) packets). Refer to the table below for additional information.

Field	Field Description	Usage Tips
Audio		
Receive address	Displays the IP address and port to which RTCP (Real Time Control Protocol) packets are being sent for the audio and video streams	
Receiver reports	Displays a count of the number of "receiver report" type RTCP packets seen by the IP VCR.	A single RTCP packet may contain more than one report of more than one type. These are generally sent by any device receiving RTP (Real Time Protocol) media from the network and are used for auditing bandwidth, errors, and so on by the IP VCR.
Sender reports	Displays a count of the number of "sender report" type RTCP packets sent by the IP VCR.	These are typically sent by any device that is sending RTP media.
Other	Displays a count of the number of reports seen by the IP VCR that are neither sender nor receiver reports.	
Transmit address	Displays the IP address and port to which the IP VCR is sending RTCP packets about this stream.	
Packets sent	Displays the number of packets sent.	
Video		
Receive address	Displays the IP address and port to which RTCP (Real Time Control Protocol) packets are being sent for the audio and video streams	
Receiver reports	Displays a count of the number of "receiver report" type RTCP packets seen by the IP VCR.	A single RTCP packet may contain more than one report of more than one type. These are generally sent by any device receiving RTP (Real Time Protocol) media from the network and are used for auditing bandwidth, errors, and so on by the IP VCR.
Sender reports	Displays a count of the number of "sender report" type RTCP packets sent by the IP VCR.	These are typically sent by any device that is sending RTP media.
Other	Displays a count of the number of reports seen by the IP VCR that are neither sender nor receiver reports.	
Transmit address	Displays the IP address and port to which the IP VCR is sending RTCP packets about this stream.	
Packets sent	Displays the number of packets sent.	

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Recording Point-to-Point Calls

The IP VCR is able to transparently record point-to-point calls. A point-to-point call is one where just two endpoints are involved - the traditional type of call. If you wish to record point-to-point calls, the Gatekeeper settings of the IP VCR must be configured correctly (see Configuring the Gatekeeper Settings).

Instead of simply calling the other endpoint by dialing its E.164 number from your video endpoint, you must add a prefix that tells the H.323 gatekeeper to pass the call to the IP VCR rather than directly to the other endpoint. Your system administrator will be able to advise you which prefix to use. The IP VCR will then attempt to call the other endpoint on your behalf, transparently passing media as normal when the call is connected. With the exception of needing to dial a slightly different number, the experience of calling the other endpoint should be identical to as if you had called it directly.

While the point-to-point call is in progress, the IP VCR records both sides of the call using one of the configured layouts (see Configuring Recording Settings). The options include showing both endpoint views side-by-side, and showing the loudest speaker in a full-screen view with the other shown picture-in-picture.

To make a point-to-point recording, follow these steps:

1. Call the remote endpoint using its E.164 number, including the prefix to pass the call through the IP VCR.
2. Recording will start immediately or shortly after the call is connected, depending on how the IP VCR is configured.
3. When you have completed your call, simply hang up. The IP VCR will disconnect the other endpoint for you, and the recording will be stored automatically.

Recording of point-to-point calls is transparent. The calling or called endpoint cannot start or stop recording other than by hanging up the call.

Related Topics

- Displaying Recordings Lists
- Configuring Recording Settings
- Configuring the Gatekeeper Settings

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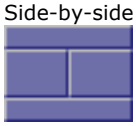
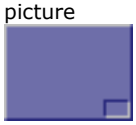
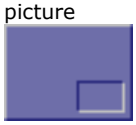
Configuring Recording Settings

You may customize a variety of the recording settings for the IP VCR to most closely fit your needs. To view and change the recording settings, choose **Home > Settings > Recording**. When you have finished editing any of the fields, press **Apply changes** to make them take effect. Refer to the table below for a description of the different fields:

Field	Field Description	Usage Tips
Loop when playing back recordings via H.323	Check this box if you wish recordings to automatically return to the start and continue playing when the end is reached during playback.	Even if this field is set, recordings will not loop while fast-forwarding. This setting applies only to playback by H.323 and not to streaming
Delay recording until coherent video seen	Check this box to instruct the IP VCR to postpone recording of incoming video media until the quality reaches a certain threshold. This will usually imply a recording delay of a second or two.	If this field is set, the IP VCR will wait for a *keyframe* in the incoming video media before recording. Starting a recording with a keyframe ensures that when the recording is replayed, the full image will be displayed right from the outset. Recordings made with this field unset may have a few seconds of incomplete video at the start. You my decide that starting recording immediately is more important than the initial video quality.
Always send video to participants being recorded	If this option is checked, the IP VCR will always send video to any participants being recorded. If the recording console is not in use, the video sent to the remote system will be blank.	When recording a conference on a remote MCU, if the IP VCR sends video to the far end as well as recording the video it receives, it may be the case that the video sent by the IP VCR ends up as part of the recorded conference in addition to the "real" participants in that conference. In theory, the IP VCR should not need to send video to an endpoint or MCU device that it is recording. However, some devices are programmed not to transmit video unless video is sent to them, and so this option allows the IP VCR to work with such systems.
Point to point layout	Choose one of these layouts for making point-to-point recordings: • Side-by-side  • Loudest speaker with small picture-in-picture  • Loudest speaker with large picture-in-picture 	Picture-in-picture views display the currently loudest speaker in a full-screen view, with the other displayed reduced in size in one corner. The speakers will exchange places depending on who is speaking.
MPEG1 recording bit rate **Streaming recording bit rate 1**	When making recordings, the IP VCR actually stores the video in three different formats: *MPEG* and two different bitrates of *streaming* . This allows the IP VCR to deliver the best quality playback in the most appropriate format. Use these fields to specify the data rate you would like the IP VCR to use for each of these formats. In addition, check the **Multicast** option next to one or both of the streaming recording settings to enable multicast streaming of recordings (see Using Streaming to View Recordings).	You should only consider changing these fields if you fully understand the implications of such changes or if advised to do so by a Codian support representative. The *MPEG* part of the recording is used for H.323 playback and to create files you may download and play on a PC (see Transferring recordings). A higher bitrate will give better quality, at the expense of consuming more IP VCR capacity and generating larger download files.

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Streaming recording bit rate 2		The *streaming* bitrates affect which bitrates will be offered when recordings are viewed by web streaming (see Using Streaming to View Recordings).
Multicast transmit IP address range	Use these fields to specify the range of multicast addresses to which the IP VCR may send multicast media for streaming.	If these values are not configured, the IP VCR will be unable to stream recordings using multicast media. Multicast addresses are in the range 224.0.0.0 to 239.255.255.255 inclusive.
Multicast transmit port number range	Sets the range of port numbers to which multicast media will be sent.	This UDP port number range is used in conjunction with the *Multicast transmit IP address range*. You must set both the start and end port numbers to transmit recordings by multicast streaming.

Related Topics

- Using Streaming to View Recordings
- Recording Point-to-Point Calls
- Using the Recording Console
- Non-Interactive Recording

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Viewing a Connected Endpoint's Diagnostics

You may view diagnostics for an endpoint's connection to the IP VCR while making and watching recordings. The diagnostics are not available for streaming playback connections. To view the diagnostics:

1. Go to **Home > Connections**.
2. Click a connection name to display the *connection status* page.
3. Click the **Diagnostics** tab.
4. Select which endpoint's diagnostics you wish to view (point-to-point recordings only).

Participant Diagnostics

This page shows various low-level details pertaining to the endpoint's communication with the IP VCR. You are not likely to need to use any of the information on this page except when troubleshooting specific issues under the technical guidance of Codian.

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Displaying Endpoint List

The Endpoint List displays all endpoints that have been configured within the IP VCR.

To add a new H.323 endpoint, press **Add H.323**. To delete configured endpoints, select the ones you wish to delete and press **Delete selected**.

Field	Field Description
Name	Displays the name of the endpoint
Address	Displays the IP address, host name, or an E.164 address (phone number).

Related Topics

- Adding an H.323 Endpoint

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Configuring H.323 Endpoints

You can configure an H.323 endpoint on the IP VCR by choosing **Home > Endpoints > Add H.323**. This makes it easier to add endpoints to conferences because you can choose its name from a list rather than by its network address. The IP VCR can also call a configured endpoint to add it to a conference.

Refer to the table below for tips on adding an H.323 endpoint to the IP VCR. After entering the settings, click **Add endpoint**.

Field	Field Description	Usage Tips
Name	Identifies the name of the endpoint.	
Address	Displays the IP address, host name, or an E.164 address (phone number).	
H.323 gateway	Identifies the gateway through which the endpoint connects.	
Preferred bandwidth from IP VCR	Identifies the network capacity (measured in bits per second) used by the media channels established by the IP VCR to a single participant.	These settings take priority over the *Default bandwidth from IP VCR* setting configured in the global Connection settings (see Connection Settings).
Preferred bandwidth to IP VCR	Sets the bandwidth that the endpoint will advertise to the IP VCR when it calls it.	These settings take priority over the *Default bandwidth to IP VCR* setting configured in the global Connection settings (see Connection Settings).

Related Topics

- Displaying Endpoint List

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Displaying Gateway List

You can configure the Codian IP VCR to work with one or more H.323 gateways. The IP VCR can then effectively call through these configured gateways to one or more endpoints which are registered with the gateway but would not be reachable directly from the IP VCR.

For example, an IP PBX could be configured as a gateway, and the IP VCR could then call its registered E.164 numbers.

The gateway list shows all of the currently configured H.323 gateways. To access this list, go to **Home > Gateways**.

Field	Field Description
Name	Displays the descriptive name of the gateway.
Address	Displays the IP address or host name of the gateway.
Receive bandwidth	Displays the configured preferred bandwidth to the IP VCR from the gateway, or <*default value*> if no preference has been specified.
Transmit bandwidth	Displays the configured preferred bandwidth from the IP VCR to the gateway, or <*default value*> if no preference has been specified.

Related Topics

- Adding and Updating Gateways

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Adding and Updating Gateways

You can configure the Codian IP VCR with one or more H.323 gateways:

- To add an H.323 gateway, go to **Home > Gateways > Add new H.323 gateway**. After entering the settings described below, click **Add H.323 gateway**.
- To update an existing H.323 gateway, go to **Home > Gateways** and click on a gateway name. After updating the settings described below, click **Update H.323 gateway**.

Field	Field Description	More Information
Name	Indicates the descriptive name of the gateway.	All gateways must have unique names.
Address	Indicates the IP address or host name of the gateway.	
Preferred video size	Limits the video size received or sent through the gateway.	
Preferred bandwidth from IP VCR	Identifies the network capacity (measured in bits per second) used by the media channels established by the IP VCR to a single participant.	
Preferred bandwidth to IP VCR	Sets the bandwidth that the endpoint will advertise to the IP VCR when it calls it.	

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System Defined Users

The IP VCR is pre-configured with two user accounts ("admin" and "guest"), but you can also add other users. Refer to the table below for descriptions of the pre-configured users.

User ID	Description	Usage Tips
admin	The IP VCR must have at least one configured user with administrator privileges. By default, the User ID is "admin" and no password is required.	After logging into the IP VCR for the first time (see Logging into the Web Browser), you can change the User ID and password for this account.
guest	The IP VCR must have at least one configured user with access privileges below *administrator*. The fixed User ID for this user is "guest" and by default no password is required.	You cannot change the name of the "guest" User ID, but you can add a password.

You can modify the system defined user accounts if you need to. For example, for security, you should add a password to the admin account.

Note that you can also create new accounts with administrator or lower access privileges in addition to these pre-defined users (see Adding and Updating Users).

Refer to these topics for assistance in modifying these users:

- Modifying the "admin" User
- Modifying the "guest" User

Modifying the "admin" User

The "admin" user is the default login account initially used to access the web interface.

1. Go to **Home > Users**.
2. Click **admin**.
3. Refer to the table below to determine the most appropriate settings for the user.
4. After entering the settings, click **Update user settings**.

Field	Field Description	More Information
User ID	Identifies the log-in name used to access the IP VCR web browser.	
Password	Specifies any required password.	
Re-enter password	Verifies the required password.	
Privilege level	Displays the privilege level, which is fixed at *administrator*.	See User Privileges for detailed explanations.

Modifying the "guest" User

1. Go to **Home > Users** .
2. Click **guest**.
3. Refer to the table below to determine the most appropriate settings for the user.
4. After entering the settings, click **Update user settings**.

Field	Field Description	More Information
User ID	Identifies the log-in name used to access the IP VCR web browser. This is fixed at "guest"	

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Password	Specifies any required password.	
Re-enter password	Verifies the required password.	
Privilege level	Displays the privilege level, which can be changed to any level except *administrator*.	See User Privileges for detailed explanations.

Related Topics

- User Privileges
- Viewing User List
- Adding and Updating Users
- Updating Your Own Profile

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Adding and Updating Users

You can add and update users to the IP VCR. Although most information is identical for both tasks, some fields differ.

Adding a User

Follow these steps to add a user:

1. Go to **Home > Users**.
2. Click **Add new user**.
3. Refer to the table below to determine the most appropriate settings for the user.
4. After entering the settings, click **Add user**.

Updating a User

Follow these steps to update an existing user:

1. Go to **Home > Users** .
2. Click a user name.
3. Refer to the table below to determine the most appropriate settings for the user.
4. After entering the settings, click **Update user settings**.

Field	Field Description	More Information
User ID	Identifies the log-in name that the user will use to access the IP VCR web browser.	
Name	Identifies the full name of the user.	
Password	Specifies any required password.	
Re-enter password	Verifies the required password.	
Privilege level	Specifies the access privileges to be granted to this user.	See User Privileges for detailed explanations.

Related Topics

- System Defined Users
- User Privileges
- Viewing User List
- Updating Your Own Profile

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Privilege Levels

Every configured user in the IP VCR has an associated privilege level. There are four defined privilege levels which determine the amount of control the user has over the IP VCR and its settings. Refer to the table below for details.

Privilege level	Access
administrator	The main difference between an administrator and users with lower privilege levels is that administrators can change settings that affect all recordings and the configuration of the IP VCR itself, whereas other users only have access to individual recordings and to their own profiles. Users with administrator access can: • View IP VCR-wide status (**Home > Status**) • Perform software upgrades (**Home > Settings > Upgrade**) • Change system-wide connection settings (**Home > Settings > Connections**) • Change recording settings (**Home > Settings > Recording**) • View the Event Log (**Home > Events**) • Configure H.323 gateways (**Home > Gateways**) • Manage Users (**Home > Users**) • Manage Endpoints (**Home > Endpoints**) • Fully control recordings (**Home > Recordings**)
full recording access	Users with this privilege level can: • Change their own profile (**Home > Profile**) • View the list of stored recordings (**Home > Recordings**) • View recordings via streaming (**Home > Recordings**) • Upload new recordings (**Home > Recordings**) • Fully control recordings (**Home > Recordings**) • View and modify active connections (**Home > Connections**)
recording list plus streaming	Users with this privilege level can: • Change their own profile (**Home > Profile**) • View the list of stored recordings (**Home > Recordings**) • View recordings via streaming (**Home > Recordings**)
recording list only	Users with this privilege level can: • Change their own profile (**Home > Profile**) • View the list of stored recordings (**Home > Recordings**) The recordings list shows any configured E.164 numbers, and so is useful for finding out what number to dial to play back a stored recording to a H.323 video conferencing endpoint. See Connecting Directly Using a Phone Number for additional information.

Related Topics

- System Defined Users
- Viewing User List
- Adding and Updating Users
- Updating a User's Profile

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Displaying User List

The User List gives you a quick overview of all configured users on the IP VCR and a brief overview of some of their settings. To display this list, go to **Home > Users**. Refer to the table below for assistance.

Field	Field Description
User ID	Shows the log-in name that the users to access the IP VCR web browser.
Name	Shows the full name of the user.
Privilege	Displays the access privileges associated with this user. See User Privileges for detailed explanations.

Related Topics

- System Defined Users
- User Privileges
- Adding and Updating Users

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Editing Your User Profile

You can make some changes to your user profile to update. To do this, choose **Home > Profile**. Refer to the table below for tips.

Field	Field Description	More Information
Name	Make any changes to your name, which identifies you to other users.	Changing this field does not change your log-in User ID.
Password	Enter a new password.	
Re-enter password	Verify the new password.	

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Configuring Network Settings

You can configure the network settings on the IP VCR and check the network status by choosing **Home > Settings > Network A** or **Home > Settings > Network B**

The IP VCR has two Ethernet interfaces, *Port A* and *Port B*. The configuration pages for the two interfaces look and behave similarly, and so are described together. Differences will be noted as appropriate.

- IP Configuration
- IP Status
- Ethernet Configuration
- Ethernet Status

IP Configuration Settings

These settings determine the IP configuration for the appropriate Ethernet port of the IP VCR. When you have finished, you must press **Update IP configuration** to make any changes take effect.

Field	Field Description	Usage Tips
Port enabled	Specifies whether the port is enabled or disabled. When enabled, the port will allow IP traffic to flow; when disabled, IP traffic will not pass into or out of the IP VCR on this port	Port A can never be disabled, as it is the primary interface of the IP VCR. Port B may be enabled only if the *Video firewall* feature is enabled - this requires a feature activation key (see Upgrading the firmware).
Host name	Specifies a name for the IP VCR.	Depending on your network configuration, you may be able to use this host name to communicate with the IP VCR, without needing to know its IP address.
IP configuration	Specifies whether the IP VCR obtains its own IP address for this port automatically via DHCP (Dynamic Host Configuration Protocol), or whether you want to specify fixed values.	Only *manual* IP configuration may be used with Port B. Press the **Renew DHCP** button to request a new IP address if you have selected automatic configuration.
Manual Configuration		
IP address	Identifies the dot-separated IPv4 address for this port, for example 192.168.4.45	You only need to specify this option if you have chosen *manual* IP configuration, as described above.
Subnet mask	Identifies the subnet mask required for the IP address you wish to use, for example 255.255.255.0	
Default gateway	Identifies the IP address of the default gateway on this subnet, for example 192.168.4.1	If both Port A and Port B are enabled, you must specify which port's default gateway setting is used. This is selected on the **Routes** configuration page (see Configuring IP Routing settings). Regardless of the selected preference, you must still specify the default gateway if using manual configuration.
Name server (DNS)	Identifies the IP address of the name server.	If both Port A and Port B are enabled, you must specify which port's name server setting is used. This is selected on the **Routes** configuration page (see Configuring IP Routing settings). Regardless of the selected preference, you must still specify the name server if using manual configuration.

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Secondary name server (DNS)	Identifies specify an optional second name server.	
Domain name (DNS suffix)	Specifies an optional suffix to add when performing DNS lookups.	This can allow you to use non-fully qualified host names when referring to a device by host name instead of IP address. For example, if the domain name is set to *codian.com*, then a request to the name server to look up the IP address of host *endpoint* will actually lookup *endpoint.codian.com*.

IP Status

Use the IP Status fields to quickly verify the current IP settings for the appropriate Ethernet port of the IP VCR, which were obtained using DHCP or configured manually (see IP Settings) including:

- Host name
- DHCP
- IP address
- Subnet mask
- Default gateway
- Name server (DNS)
- Secondary name server (DNS)
- Domain name (DNS suffix)

Ethernet Configuration

These settings determine the Ethernet settings for the appropriate port of the IP VCR. Refer to the table for assistance with these settings. When you have finished, you must press **Update Ethernet configuration** to make the changes take effect.

Field	Field Description	Usage Tips
Ethernet settings	Specify whether you want this Ethernet port to automatically negotiate its Ethernet settings with the device it is connected to, or if it should obtain its configuration manually using fixed values that you must specify.	It is important that your Ethernet settings match those of the device to which this port is connected. For example, both devices must be configured to use automatic negotiation, or both configured with fixed and matching speed and duplex settings (see below).
Manual Configuration Speed		
Speed	Identifies the connection speed: *10 Mbit/s*, *100 Mbit/s* and *1000 Mbit/s*.	The connection speed must match that of the device to which this port is connected. You only need to select this option if you have chosen *manual* Ethernet settings, as described above.
Duplex	Identifies the connection duplex mode: • **Full duplex** Both devices can send data to each other at the same time • **Half duplex** Only one device can send to the other at a time	The duplex setting must match that of the device to which this port is connected. You only need to select this option if you have chosen *manual* Ethernet settings, as described above.

Ethernet Status

Field	Field Description	Usage Tips

Link status	Indicates whether this Ethernet port is connected to or disconnected from the network.	
Speed	Shows the speed (*10*/*100*/*1000 Mbit*/*s*) of the network connection to the IP VCR on this port.	This value is negotiated with the device to which this port is connected or based on your manual configuration, depending on the settings you chose above.
Duplex	Shows the duplex mode (*full*/*half duplex*) of the network connection to this port.	This value is negotiated with the device to which this port is connected or based on your manual configuration, depending on the settings you chose above.
MAC address	Shows the fixed hardware MAC (Medium Access Control) address of this port.	This value cannot be changed and is for information only.
Packets sent	Displays a count of the total number of packets sent from this port by the IP VCR. This includes all TCP and UDP traffic.	When troubleshooting connectivity issues, this information can help you confirm that the unit is transmitting packets into the network.
Packets received	Displays a count of the total number of packets received by this port of the IP VCR. This includes all TCP and UDP traffic.	When troubleshooting connectivity issues, this information can help you confirm that the unit is receiving packets from the network.
Multicast packets sent	These fields display further statistics for this port.	Use these fields for advanced network diagnostics, such as resolution of problems with Ethernet link speed and duplex negotiation.
Multicast packets received		
Total bytes sent		
Total bytes received		
Receive queue drops		
Collisions		
Transmit errors		
Receive errors		

Related Topics

- Configuring IP Routing settings
- Upgrading the Firmware

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Upgrading the Firmware

If you need to upgrade the firmware or activate features on the IP VCR, refer to these topics:

- Upgrading the Main IP VCR Software Image
- Upgrading the Loader Software Image
- Restarting the IP VCR
- Enabling IP VCR features

Upgrading the Main IP VCR Software Image

The main IP VCR software image is typically the only firmware component that you will need to upgrade.

Follow these steps to upgrade this image:

1. Check the **Current version** field to verify the currently installed version.
2. Log onto the Codian support pages to identify if a more recent image is available.
3. Download the latest available image and save it to a local hard drive.
4. Unzip the image file.
5. Log on to the IP VCR web browser interface.
6. Go to **Home > Settings > Upgrade**.
7. Click on the **Browse** button to locate the unzipped file on your hard drive.
8. Click the **Upload software image** button. The browser begins uploading the file to the IP VCR, and a new browser window opens to indicate the progress of the upload. When finished, the browser window refreshes and indicates that the "Main imagine upgrade completed."
9. The upgrade status displays in the **IP VCR software upgrade status** field.
10. Shutdown and restart the IP VCR.

Upgrading the Loader Software Image

Upgrades for the Loader software image are not typically available as often as upgrades to the main software image.

Follow these steps to upgrade this image:

1. Check the **Current version** field to verify the currently installed version.
2. Log onto the Codian support pages to identify if a more recent image is available.
3. Download the latest available image and save it to a local hard drive.
4. Unzip the image file.
5. Click on the **Browse** button to locate the unzipped file on your hard drive.
6. Click the **Upload loader software** button. The browser begins uploading the file to the IP VCR, and a new browser window opens to indicate the progress of the upload. When finished, the browser window refreshes and indicates that the "Main imagine upgrade completed."
7. The upgrade status displays in the **Loader upgrade status** field.
8. Shutdown and restart the IP VCR.

Shutting down and restarting the IP VCR

After upgrading either software image, you must restart the IP VCR. Before you restart, it is recommended that you *Shutdown* the IP VCR. This will cause all playbacks to finish, allows the IP VCR to ensure that all recordings are cleanly ended and stored, and will disconnect all recording and playback H.323 connections. In addition, the hard disk in the IP VCR will be shutdown safely - this is important to ensure the integrity of stored recordings.

You should also shutdown before intentionally removing power from the IP VCR.

To shutdown the IP VCR, follow these steps:

1. Click the **Shutdown IP VCR** button.

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2. Confirmation of shutdown is required; the button changes to **Confirm IP VCR shutdown**.
3. Click again to confirm.
4. The IP VCR will begin to shutdown. The banner at the top of the page will change to indicate this.
5. When the shutdown is complete, the button will change to **Restart IP VCR**.
6. Click this button a final time to restart the IP VCR

Enabling IP VCR features

The IP VCR requires activation before most of its features can be used. (If the IP VCR has not been activated, the banner at the top of the web interface will show a prominent warning; in every other respect the web interface will look and behave normally.) Advanced IP VCR features (such as *Video Firewall*) are not enabled as standard, and require additional activation.

If this is a new IP VCR you should receive the unit already activated; if it is not, you have upgraded to a newer firmware version, or you are enabling a new feature, you may need to contact Codian or your supplier to obtain an appropriate activation code. Activation codes are unique to a particular IP VCR so ensure you know the unit's serial number such that you may receive a code appropriate to your IP VCR.

Regardless of whether you are activating the IP VCR or enabling an advanced feature, the process is the same:

1. Check the **Activated features** (IP VCR activation is shown in this same list) to confirm that the feature you require is not already activated.
2. Enter the new feature code into the **Activation code** field exactly as you received it, including any dashes.
3. Click the **Update features** button. The browser window should refresh and list the newly activated feature, showing the activation code beside it. Activation codes may be time-limited. If this is the case, an expiry date will be displayed, or a warning that the feature has already expired. Expired activation codes remain listed, but the corresponding feature will not be activated.
   If the activation code is not valid, you will be prompted to re-enter it.
4. It is recommended that you record the activation code in case you need to re-enter it in the future.
5. Successful IP VCR or feature activation has immediate effect and will persist even if the unit is restarted

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Configuring IP Routes Settings

If the *Video Firewall* feature is enabled (see Upgrading the Firmware), you will need to set up one or more routing settings to control how IP traffic flows in and out of the IP VCR. It is important that these settings are configured correctly, or you may be unable to make calls to or from the IP VCR or access the web interface. You can configure the route settings by choosing **Home > Settings > Routes**.

- Port preferences
- IP services configuration
- IP routes configuration
- Current IP status

Port preferences

If both Ethernet ports are enabled, it is necessary to specify which port is used in certain special circumstances. Make the appropriate selections described below, then press **Apply changes** to make any changes take effect.

Field	Field Description	Usage Tips
Default gateway preference	The default gateway specifies the IP address to which the IP VCR will send packets in the absence of more specific routing (see IP routes configuration). Therefore, it only makes sense to have precisely one default gateway, even though *different* default gateways may have been configured for Ports A and B. Use this option to decide which port's default gateway configuration to use as the unit's default gateway.	If Ethernet Port B is disabled, it will not be possible to specify that port as the default gateway preference. Selecting Port B as default gateway preference then disabling Port B will cause the preference to revert to Port A.
Name server (DNS) preference	The name server specifies the IP address to which the IP VCR will send requests to look up unrecognised host names in order to determine their corresponding IP addresses. Only one name server (and associated secondary name server) may be used, even though *different* name servers may have been configured for Ports A and B. Use this option to decide which port's name server configuration to use as the unit's name server.	If Ethernet Port B is disabled, it will not be possible to specify that port as the name server preference. Selecting Port B as name server preference then disabling Port B will cause the preference to revert to Port A.

IP services configuration

Use this table to control the type of services that may be accessed via Ethernet Ports A and B. You might use this if one port is connected to a network outside your organisation's firewall, and you wish to restrict the level of access that external users are entitled to, for example, by disabling FTP access via Port B. Refer to the table below for more details.

Field	Field Description	Usage Tips
FTP	Use this option to enable or disable FTP access on the appropriate port.	FTP can be used to upload and download recordings, and IP VCR configuration. You should consider disabling FTP access on any port that is outside your organisation's firewall. If a port is disabled, this option will be unavailable.

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Web	Use this option to enable or disable web access on the appropriate port.	Web access is required to view and change the IP VCR web pages and read online help files. If you disable web access on both Ports A and B, you will need to use the serial console interface to re-enable it. If a port is disabled, this option will be unavailable.
Incoming H.323	Use this option to allow or reject incoming calls to the IP VCR using H.323.	Disabling this option will not prevent outgoing calls to H.323 devices being made by the IP VCR . If a port is disabled, this option will be unavailable.
Streaming	Use this option to allow or disable streaming from the IP VCR	If a port is disabled, this option will be unavailable.

IP routes configuration

The controls in this section allow control over how IP packets should be directed out of the IP VCR. You should only change this configuration if you have a good understanding of the topology of the network(s) to which the IP VCR is connected.

Configuration of routes is divided into two sections: addition of new routes, and the display and removal of existing routes.

Adding a new IP route

To add a new route, first enter the details using the table below for reference. When you are satisfied with the details entered, press **Add IP route** to make the addition. If the route already exists, or aliases (overlaps) an existing route, you will be prompted to correct the problem and try again.

Field	Field Description	Usage Tips
IP address / mask length	Use these fields to define the type of IP addresses to which this route applies. The IP address pattern must be in the dot-separated IPv4 format, while the mask length is chosen from a drop-down list The mask field specifies how many bits of the address are fixed; unfixed bits must be set to zero in the address specified.	To route all IP addresses in the range 192.168.4.128 to 192.168.4.255 for example, specify the IP address as 192.168.4.128 and the mask length as 25, to indicate that all but the last seven bits address are fixed.
Route	Use this field to control how packets destined for addresses matching the specified pattern are routed. You may select **Port A**, **Port B** or **Gateway**. If the latter option is selected, you must specify the IP address of the gateway you wish packets to be directed to.	Selecting Port A results in matching packets being routed to Port A's default gateway (see Configuring Network Settings). Selecting Port B will cause matching packets to be routed to Port B's default gateway. If Ethernet Port B is disabled, the option to route packets to Port B will be disabled.

Viewing and deleting existing IP routes

Configured routes are listed below the *Add IP route* controls. For each route, the following details are shown:

- The IP address pattern and mask
- Where matching packets will be routed, with the possibilities being:
  - **Port A** - meaning the default gateway configured for Port A
  - **Port B** - meaning the default gateway configured for Port B
  - **<IP address>** - a specific address has been chosen.
- Whether the route has been configured automatically as a consequence of other settings, or added by the user as described above.

The *default* route is configured automatically in correspondence with the *default gateway preference* field (see Port preferences) and cannot be deleted. Any packets not covered by manually configured routes will be routed according to

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this route.

Manually configured routes may be deleted by selecting the appropriate checkbox and pressing **Delete selected**.

Routes behaviour with disabled ports

If the default gateway preference is set to Port B (for example) and that port is disabled, the *default* route will be updated automatically to route packets not covered by any manually configured route via Port A.

If a manually configured route specifies Port B (for example) and that port is disabled, packets matching that route **will not** be automatically be routed via Port A, but discarded. You should take care to avoid this situation.

Current IP status

This table shows the current default gateway and name server(s) for Ethernet Ports A and B. No fields can be changed, and are provided for reference when configuring the other parameters described in the sections above.

Related Topics

- Configuring Network Settings
- Upgrading the Firmware

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Displaying General Status

The General Status displays an overview of the IP VCR status. To access this information, go to **Home > Status > General.**

To reset these values, click **Clear**. Refer to the table below for assistance in interpreting the information displayed. general state of the IP VCR.

Field	Field Description
System status	
Model	Indicates specific Codian IP VCR model
Serial number	Shows the unique serial number of the IP VCR
Software version	Displays installed firmware version
Build	Displays build version of installed firmware
Up time	Displays time since the last restart of the IP VCR
Current time	Displays current time.
Host name	Displays the host name assigned to the IP VCR
IP address	Displays the IP address assigned to the IP VCR
Media processing load	Displays an overview of the current processing load on the IP VCR. If the total load is consistently high, you might need to add an additional IP VCR to better handle your video conferencing needs. Also, the total load may increase during periods of peak conference use. A low video load with high audio load implies that most of the conference participants have connected with audio-only endpoints.
System time	
New time	Allows you to set a new time on the IP VCR. Click **Change system time** after modifying this value.
New date	Allows you to set a new date on the IP VCR. Click **Change system time** after modifying this value.

Related Topics

- Displaying Recording Status
- Displaying Hardware Health Status

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Displaying Recording Status

The Recording Status displays the status of stored recordings and recordings being played back. To access this information, go to **Home > Status > Recording.**

Many of the fields show the current value, the highest value attained (in parentheses), and the maximum value the field may take. To reset the maximum values, click **Reset maximum values**.

Refer to the table below for assistance in interpreting the information displayed.

Field	Field Description
Number of stored recordings	Displays the number of recordings currently stored on the IP VCR. This includes recordings made using the IP VCR as well as those uploaded to it.
Number of recordings in progress	Displays the number of recordings that are currently being made.
Number of H.323 playbacks in progress	Displays the number of people currently watching stored recordings using an H.323 endpoint.
Number of streaming playbacks in progress	Displays the number of people currently watching stored recordings using conventional streaming via a streaming application such as Apple Quicktime or RealPlayer.
Number of TCP streaming playbacks in progress	Displays the number of people currently watching stored recordings using streaming over TCP.
Number of downloads in progress	Displays the number of recordings that are currently being downloaded from the IP VCR
Number of completed playbacks	Displays the number of people who were once watching stored recordings but are now not. Includes all types of playback, including streaming and playback using an H.323 endpoint
Number of completed downloads	Displays the number of recordings that have been downloaded from the IP VCR
Number of recording uploads in progress	Displays the number of recordings currently being uploaded to the IP VCR for later playback.
Total length of stored recordings	Displays the combined duration of all recordings stored on the IP VCR.
Total size of stored recordings	Displays the combined storage capacity used by all recordings stored on the IP VCR.
Free disk space	Shows the remaining storage capacity of the IP VCR

Related Topics

- Displaying General Status
- Displaying Hardware Health Status

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Displaying Hardware Health Status

The Health Status displays information about the hardware components of the IP VCR. To access this information, go to **Home > Status > Health.**

To reset these values, click **Clear**. Refer to the table below for assistance in interpreting the information displayed.

Field	Field Description	Usage Tips
Fans **Voltages** **RTC battery**	Displays three possible states: • OK • Out of spec • Critical States indicate both **Current Status** and **Worst Seen** conditions.	• **OK** – component is functioning properly • **Out of spec** – Check with your support provider; component might require service. If the **Worst Seen** column displays "Out or spec", but **Current Status** is "OK", monitor the status regularly to verify that it was only a temporary condition.
Temperature	Displays three possible states: • OK • Out of spec • Critical States indicate both **Current Status** and **Worst Seen** conditions.	• **OK** – temperature of the IP VCR is within the appropriate range • **Out of spec** – Check the ambient temperature (should be less than 34 degrees celsius) and verify that the air vents are not blocked • **Critical** – temperature of IP VCR is too high. An error also appears in the event log indicating that the system will shutdown in 60 seconds if the condition persists. If the **Worst Seen** column displays "Out or spec", but **Current Status** is "OK", monitor the status regularly to verify that it was only a temporary condition.

Related Topics

- Displaying General Status
- Displaying Recording Status

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Working with the Event Logs

If you are experiencing complex issues that require advanced troubleshooting, you may be need to collect information from the IP VCR event logs. Typically, you will be working with a Codian support professional who can provide you with assistance in obtaining these logs.

The information available in these log files include:

- Event log — contains the last 2000 status messages generated by the IP VCR
- Capture filter — allows you to change the level of detail to collect in the traces. You should not modify this setting unless instructed to do so by a Codian support professional.
- Display filter — allows you to view or highlight stored event log entries
- Syslog — allows you to view all networking-related events
- H.323 log — allows you to view all H.323 events

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Customising the User Interface

By default the IP VCR includes English voice prompts spoken by a female American voice. You may wish to replace these prompts with your own in order to change the wording, language or accent used. Alternate prompts may be uploaded individually using the web interface. Alternatively, a collection of voice prompts may be uploaded in one go by means of a *resource package* (see Uploading a customisation package).

The entire customisation process is controlled via the web interface. To customise the user interface for your needs, go to **Home > Settings** and click on the **Customisation** tab. Refer to the sections below for details of the options available and for a description of the information displayed.

- Selecting the customisation set
- Uploading an alternate customisation package
- Using the customisation resource list
- Voice prompt specification
- Making the best possible recordings

Selecting the customisation set

This table provides two selections: *Default* and *Alternate*. The default set is identified as *US English* and is the standard set of voice prompts supplied with the IP VCR. These are spoken by a female voice in Americanized English. The alternate set may be un-named if you have uploaded voice prompts individually, or may have a specific identifier if you have uploaded a resource package.

To select a different customisation set, click the appropriate option, then press **Apply changes**. The customisation set selected will be applied immediately, although it may take a few seconds before everyone connected to the IP VCR are able to hear the new prompts.

You may change between the default and alternate set of customisations at any time, without needing to upload alternate customisations each time, and there is no need to restart the IP VCR or disconnect participants when you make this change. You should be aware, however, that users may hear disjoint audio if the change takes place while they are listening to a particular prompt, although in practice this is not usually a problem.

Note that the default voice prompts will be used where there is no alternate prompt available, even if the *Alternate* set is selected.

Uploading a customisation package

It is possible to upload a collection of alternate voice prompts to the IP VCR with a single upload operation, using a *resource package*. Such a package may have been supplied to you by Codian or one of its representatives, or you may have created the package yourself (see Downloading a customisation package).

To upload a package, press the **Browse** button to locate the *.package* file on your computer. Once you have found an appropriate file, click **Upload package**. The upload may take several seconds, depending on the size of the package file, the speed of your network connection, etc. When the upload is complete, a status screen will be shown, displaying some or all of the individual voice prompt customisations included in the package if the upload was a success, or an error message if the upload failed for some reason.

If you have already uploaded alternate voice prompt customisations to the IP VCR, then these will be replaced by those in the customisation package. If a particular customisation is not included in the package, then any existing customisation is unchanged. This allows customisation sets to be built up using several different packages if required.

Uploading a package does not automatically select the alternate customisation set. You must do the manually (see Selecting the customisation set). However, if the alternate set is already selected, uploading a customisation package will have immediate effect.

Customisation packages may include a name, meaning that you may notice the *Alternate* option may have a new identifier after a package upload.

Using the customisation resource list

You may review the voice prompt customisations available in the table headed *Installed customisations*. This displays all customisations, providing extended details for those which have alternate voice prompts uploaded. However, since this list can be quite long, by default it is hidden. Instead, it simply shows the number of customisations (files) available. If any have been modified (meaning an alternate customisation has been uploaded, either individually, or as part of a package), then this is indicated by an asterisk after the table name.

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To expand the list to show all voice prompt customisations, click **show file details**; you may subsequently hide it again by clicking **hide file details**.

In the expanded state, the table shows, for each customisation, a description of the voice prompt, the standard IP VCR filename for the customisation, and the length and date modified (uploaded) of alternate customisations present. Voice prompts where an alternate is available are also indicated by an asterisk after their name.

Refer to the sections below for details of further functionality provided by the resource list:

- Uploading individual customisations
- Downloading individual customisations
- Downloading a customisation package
- Deleting alternate customisations

Uploading individual customisations

You may upload individual customisations. To do this, click the **upload** link for the customisation you wish to modify. You may do this regardless of whether an alternate customisation has already been uploaded.

You will be presented with a new screen, allowing you to locate and upload the customisation of your choice. Press the **Browse** button to locate the voice prompt file on your computer. Voice prompt files must be in the following format:

- Microsoft WAVE (.WAV) format
- 16kHz (16000Hz) sample rate
- Mono
- Uncompressed
- Maximum 10 seconds long

If you upload a file that is not in this format, the upload may fail or the voice prompt may sound distorted when heard by users. Use an audio editing package of your choice to make any conversions required. See Making the best possible recordings for how to obtain the best possible voice prompts for your IP VCR customisation.

Note that in addition to the 10 second length limit per prompt, there is a total length limit of 4 minutes for the full set of prompts. That is, if all samples were played back-to-back, it should take no more than 240 seconds.

When you have located the file you wish to upload, press **Upload customisation**. If the upload is successful, a page displaying the size of the file uploaded will be displayed; otherwise an error will be shown. If the upload fails, check your audio file matches the specification above before contacting your support representative.

Downloading individual customisations

You may wish to review a customisation that has been previously uploaded to the IP VCR. To do this, use the customisation list to locate the prompt of interest, and click **download**. The file will be downloaded to your computer for reference. Only alternate customisations can be downloaded in this way; the default voice prompts may not be downloaded. In addition, only customisations uploaded as individual files may be downloaded; those uploaded as part of a package may not be downloaded.

Downloading a customisation package

Once you are satisfied with your customisations, you may wish to apply the entire set to another IP VCR. Rather than individually uploading the alternate voice prompts to each one, you may create a *resource package*.

To create a resource package containing all of the alternate voice prompt resources previously uploaded, click **download package** at the bottom of the resource list. The resource package will be downloaded to your computer.

A package may only contain resources uploaded as separate files; those uploaded as part of another package may not be included. The package download option may be unavailable if no resources qualify for inclusion.

Deleting alternate customisations

If you are dissatisfied with an alternate customisation that you have uploaded to the IP VCR, you may delete it in the following manner:

1. Locate the resource of interest in the list
2. Click the corresponding check box to the left of the resource
3. Press **Delete selected** to remove the customisation

Only alternate customisations may be deleted in this way; the default voice prompts cannot be deleted. If you delete an alternate customisation, it will immediately revert to the default prompt, even if the *Alternate* customisation set has

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been selected

You may wish to delete all customisations. To do this, press **Delete all**. Remember that you may revert to the default set of voice prompts without needing to delete any alternate customisations, by selecting the *Default* customisation set (see Selecting the customisation set).

Voice prompt specification

Below is a complete list of the voice prompts that may be customised. The default wording is shown for each prompt. You do not have to use exactly the same wordings if they are not appropriate for your needs, and are provided only as a guide.

Filename	Default wording
voice_prompt_control_use_fecc	Please use the far end camera control on your remote to make your selection
voice_prompt_pin_incorrect	Sorry, I did not recognise that security pin, please try again
voice_prompt_playback_start	Playback is starting now
voice_prompt_recording_paused	Recording is paused
voice_prompt_welcome_vcr	Hello. Welcome to the video call recording system
voice_prompt_recording_control_start	Use up to start recording
voice_prompt_recording_control_stop	Use down to stop recording
voice_prompt_recording_home	This is the main recording screen

Making the best possible recordings

There are many factors to consider when recording alternate voice prompts in order to get the best results. Below is a brief summary of the points to bear in mind, though a more detailed document is available from Codian on request

Recording format

It is best to make each recording with the ideal settings and hence avoid any sample-rate or resolution resolution changes. As discussed, the ideal format is Microsoft Wave (.WAV) format, uncompressed, mono, at 16 kHz and 16-bit resolution.

If you are unable to make mono recordings, the IP VCR can convert stereo recordings.

Background noise

It is important to minimise background noise (hiss) as much as possible. This includes ambient noises such as road noise and slamming doors etc. but also try to keep fan noise and similar to a minimum.

When played back by the IP VCR, samples with background noise (hiss) are very apparent.

Consistency

If possible, record all voice prompts in one session. This will ensure that all voice and background conditions remain constant and the recorded voice will sound similar from prompt to prompt.

Volume

Record prompts using a relatively constant loudness of voice. Although it may take some trial and error, best recordings will result from speaking loud enough that the voice is recorded loudly compared to any residual background noise, but not so loudly that it sounds distorted when played back.

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Contact Details and License Information

Please refer to the following sections for details of where to get further help and for additional IP VCR software license information:

- Codian
- Software licenses

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